

Claims

1. A recombinant nucleic acid containing at least a first nucleotide sequence operably linked to at least a second nucleotide sequence containing a transgene to be expressed, wherein the first nucleotide sequence contains a regulatory sequence selected from the group consisting of SEQ-ID-No. 1, SEQ-ID-No. 2, and a biologically active derivative thereof.
2. The recombinant nucleic acid according to claim 1, wherein the regulatory sequence is a promoter sequence selectively inducible by chemicals.
3. The recombinant nucleic acid according to claim 2, wherein the chemicals are selected from the group consisting of organic compounds.
4. The recombinant nucleic acid according to claim 3, wherein the organic compounds are selected from the group consisting of phenolic compounds, thiamine, benzoic acid, isonicotinic acid (INA), and derivatives thereof.
5. The recombinant nucleic acid according to claim 4, wherein the phenolic compound is salicylic acid or a structural or functional derivative thereof.
6. The recombinant nucleic acid according to anyone of claims 1 to 5, further containing a reporter system which comprises at least one nucleotide sequence, wherein the expression/transcription of said nucleotide sequence results in a detectable signal.
7. A vector containing the recombinant nucleic acid according to anyone of claims 1 to 6.
8. A host organism containing the recombinant nucleic acid according to anyone of claims 1 to 6 or the vector according to claim 7.
9. The host organism according to claim 8, which is selected from the group consisting of a bacteria cell and a plant cell.

10. A transgenic plant containing at least the recombinant nucleic acid according to claim 1.
11. The transgenic plant according to claim 10, wherein the recombinant nucleic acid is stably integrated into the genetic material.
12. The transgenic plant according to claim 10 or 11, wherein the transgene contained in the second nucleotide sequence is transiently expressed.
13. The transgenic plant according to anyone of claims 10 to 11, wherein the expression of the transgene contained in the second nucleotide sequence is selectively induced upon treatment with chemicals.
14. The transgenic plant according to claim 13, wherein the chemicals are selected from the group consisting of organic compounds as defined in anyone of claims 3 to 5.
15. A method for detecting the activity of a regulatory sequence in suitable cells, comprising
 - (a) preparing transformed cells, comprising at least a nucleotide sequence coding for the Bax gene or a biologically active derivative thereof, operably linked to a nucleotide sequence comprising a potential regulatory sequence,
 - (b) treating the transformed cells with a chemical,
 - (c) measuring the expression of the Bax gene or the biologically active derivative thereof in the transformed cells, and
 - (d) correlating the Bax expression with the activity of the regulatory sequence.
16. The method according to claim 15, wherein the regulatory sequence is a promoter sequence.

17. The method according to claim 15 or 16, wherein the chemicals are selected from the group as defined in anyone of claims 3 to 5.
18. The method according to anyone of claims 15 to 17, wherein the transformed cells form at least part of a transgenic plant.
19. The method according to anyone of claims 15 to 18, wherein the expression of the Bax gene is detected as necrotic area in the plant.